

Amendments to the Drawings:

Applicant respectfully requests that the changes to the drawings (FIGS. 3a, 3b, 6, 11, and 13) be approved by the Examiner in the above-identified application. Applicant submits that no new matter has been added to the specification.

In FIG. 3a, please amend the drawing by replacing “Build key value” (ref. 514) with “Key Value Build Program Instructions”, “Search for Key Value” (ref. 516) with “Key Value Search Program Instructions”, and “Search Masks for PCD” (ref. 522) with “Search Mask Table”.

In FIG. 3b, please amend the drawing by replacing “Build key value” (ref. 514) with “Key Value Build Program Instructions” and “Search for Key Value” (ref. 516) with “Key Value Search Program Instructions”, and “Search Masks for PCD” (ref. 522) with “Search Mask Table”.

In FIG. 6, please amend the drawing by deleting reference numbers 182, 185, 186, and 187.

In FIG.11, please add a bracket over the heading “Processing Key Values” to indicate that reference number 193 applies to processing key values X, W, and Z collectively, and delete reference numbers 192, 196, 197, 198, and 199.

In FIG.13, please revise block 500 to read “Read data element from the key definition”, block 502 to read “Get the search mask field value”, and block 504 to read “Equal search mask field value”.

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Applicant respectfully requests that the proposed drawing changes be approved by the Examiner. For each of FIGS. 3a, 3b, 6, 11, and 13, a sheet depicting the proposed amendments and replacement sheets are attached.

Remarks/Arguments

A. Claims in the Case

Claims 81-95 are pending. Claims 81, 85, 86, 90, 91, and 95 have been amended.

B. Drawing Objections

The Office Action has indicated informalities with respect to some of the drawings. Applicant has amended the drawings and/or the specification for clarification purposes.

The Office Action included objections to FIGS. 9 and 10 on grounds that the value to show element 214 and FIG. 13 on grounds that it fails to show element 510. Applicant respectfully submits that element 214 is on FIGS. 9 and 10 and that element 510 is on FIG. 13.

C. Specification Objections

The Office Action has indicated informalities with respect to portions of the specification. Applicant has amended the specification for clarification purposes.

D. 35 U.S.C. §112, Second Paragraph

The Examiner rejected claims 81, 85, 86, 90, and 95 under 35 U.S.C. 112, second paragraph, on grounds that the claims fail to particularly point out and distinctly claim the subject matter which application regards as the invention.

The Office Action appears to take the position that claims 81 and 86 must recite “financial transaction-related data” because the preambles recite “Financial Service Organization”. Applicant respectfully disagrees with the Office Action’s position. Nevertheless, to expedite prosecution of the application, Applicant has amended claims 81 and 86 to recite “financial transaction-related data”. Applicant respectfully requests removal of the rejections under 35 U.S.C. 112, second paragraph.

The Office Action states: “It is unclear from the drawings and the Specification what is meant by ‘search masks’”. Applicant respectfully disagrees with the Office Action’s position. Moreover, Applicant submits that the claims are not indefinite under 35 U.S.C. §112, second paragraph. “The test for definiteness is whether one skilled in the art would understand the bounds of the claim when read in light of the specification. If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.” *Miles Lab., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir. 1993), *cert. denied*, 510 U.S. 1100 (1994). Applicant respectfully submits that, in view of Applicant’s specification and drawings, one skilled in the art understand what is meant by the term “search masks”, and would understand the bounds of amended claims 81 and 86. Applicant’s specification specifically refers to and discusses search masks (see, e.g., page 30, line 16 to page 32, line 23; page 22, line 4 to page 27, line 26). Moreover, as further discussed below, Applicant’s specification and drawings describe examples of search masks and how they may be created and structured, as well as detailed examples of how search masks may be used (e.g., applied to a PCD table) for processing financial transactions.

Applicant’s claims are generally directed to a method of obtaining data used to process financial transactions. Generally, a financial transaction processing program may receive a transaction for processing. Upon analysis of the transaction, the processing program may send a

request for processing parameters to process the transaction. The processing parameters may be accessed from a processing parameters table, which is selected based on the type of transaction received. For example, Applicant's specification states:

Transaction processing program 500 may receive a business product transaction 502 for processing. Transaction processing program 500 may require a PCD value from PCD table C 526 for processing business product transaction 502. Transaction processing program may send a request 504 to key building program 506. Request 504 may include information identifying the PCD table that transaction processing program 500 requires a PCD value from.
(Specification, pg. 22, lines 23-28)

The processing parameter table includes a plurality of processing parameters. To access the processing parameter that the received transaction needs, a key is created which is specific for the received transaction. The key will point to a particular location in the processing parameters table. The key required to access the processing parameters is created using a key building program. The key building program accesses a key definition table and obtains the key definition for the selected processing parameters table. For example, Applicant's specification states:

Key building program 506 may include program instructions 514 for building a key value. Program instructions 514 may receive the PCD table name from request 504. In this example, the PCD table name is PCD table C. Program instructions 514 may search PCD key definition table 508 for a PCD key definition for PCD table C. PCD key definition 510 may be read from PCD key definition table 508 in response to finding the entry in the table for PCD table C.
(Specification, pg. 23, lines 1-9)

A key is built by combining predetermined data elements from the received transaction. The key building program obtains data elements from the received transaction using one or more search masks. Each processing parameters table has an associated search mask table. The search mask table includes one or more search masks to be used by the key building program to create a key. A search mask includes one or more fields. Each of the search mask fields has a

predetermined search mask field value. In some embodiments, the search mask fields may have two different values - an equal mask value and a wildcard value. For example, Applicant's specification states:

Program instructions 514 may access search mask table 522 for PCD table C in database 520. In one embodiment of a search mask table, the search masks in the search mask table may be arranged in an order from first to last, wherein the search masks are read in order from first to last by a key building program until a match for a processing key value is located. After locating search mask table 522, program instructions 514 may read a first search mask 524 from search mask table 522. In one embodiment of search mask tables, each row of the search mask includes one search mask, and each search mask includes one field for each key element in the key definition associated with the search mask table. In one embodiment, wildcard mask field values and equal mask field values may be entered as mask values in search mask fields.
(Specification, pg. 23, lines 11-20)

The search mask is used to determine what data from the received transaction is used to create a key. In one embodiment, an equal mask value may specify that the value of a data element in the received transaction is used as part of the key. A wildcard mask value may indicate that a default value may be used. By referencing the search mask and collecting the indicated data from data elements of the received transaction, the key building program may prepare a key. For example, Applicant's specification states:

In one embodiment, an equal mask field value in a search mask field may specify that, when constructing or preparing a processing key value from the data element values in a customer account data set during processing of the customer account data set, the key element value in the processing key value corresponding to the mask field will be set to the data element value from the customer account data set. In one embodiment, a wildcard mask field value in a mask field may specify that, when constructing a processing key value from the data element values in a customer account data set during processing of the customer account data set, the key element value in the processing key value corresponding to the mask field will be set to the low collating value for the data type of the key element. For

example, key elements of numeric data type may use zero (0) as a low collating value, and character fields may use spaces, or blank characters, as low collating values. Other key element types may have low collating values specific to the type.

(Specification, pg. 23, lines 20-28)

Program instructions 514 may use key definition 510 and search mask 524 to build a first key value 528 from data element values read from database 518 and transaction 502. Program instructions 514 may use the data elements in key definition 510 to read the data element values from the data elements. ... Program instructions 514 may use search mask 524 to copy the data elements into processing key value 528.

(Specification, pg. 24, lines 10-16)

After a key has been created, a search of the processing parameters table is made to determine if the created key matches a key entry in the processing parameters table. If a match is found, the processing parameters associated with the key are collected and transferred to the transaction processing program. For example, Applicant's specification states:

PCD program 512 may include program instructions 516 configured for searching PCD tables and matching processing key values to PCD key values.

(Specification, pg. 24, lines 22-23)

Program instructions 516 may include instructions for searching the key value fields of a PCD table for a key value that matches a processing key value. In one embodiment, two key values match if they include the same key elements in the same order, and if the key element values in the first key value are the same as the key element values in the second key value for all of the key elements in the key element values.

(Specification, pg. 25, lines 8-13)

Each processing parameters table may have associated with it a plurality of search masks. In some embodiments, these search masks may be accessed in a predetermined order. If the first created key does not match any of the key entries in the processing parameters table, one or more additional keys may be created using different search masks. To build a new key, the key

building program may access the next search mask and a new key may be created based on the next search mask. The newly created key may be used to search the processing parameters table for a matching entry. This process may be repeated until a matching entry is found, or until there are no additional search masks to be used to create a new key. For example, Applicant's specification states:

PCD program 512 may notify key building program 506 that no match was found for processing key value 528 in PCD table C 526. Referring to Figure 3b, key building program 506 may include program instructions 514 for building a key value. Program instructions 514 may use key definition 510 and a second search mask 530 read from search mask table 522 to build a second key value 532 from data element values read from database 518 and transaction 502.

After processing key value 532 is built by program instructions 514, processing key value 532 may be passed to PCD program 512.

(Specification, pg. 26, lines 8-14)

Key building program 506 and PCD program 512 may continue to search PCD table C 526 for a match to a processing key value constructed from transaction and database data element values and wildcard values until a match is found or until all the search masks in search mask table 522 have been used without finding a matching PCD key value.

(Specification, pg. 27, lines 13-17)

In the embodiments described with respect to FIGS. 3a and 3b, search masks are provided in a search mask table. Each search includes a field for each key element if a key definition associated with the search mask table. Program instructions use the search mask to build a first key value from data element values. If the first key value matches a key value in the PCD table, the PCD value corresponding to the matching key value may be sent to the transaction processing program. If, however, the PCD table does not include a key value that matches the key value built using the search mask (as in Figure 3a, where [1,8] is not found in the PCD table), then another search mask in the table is used to build a second key value. Once a matching key value

is found (as in FIG. 3b, where [1,*] is found in the PCD table), the PCD value corresponding to the matching key value may be sent to the transaction processing program.

FIG. 8 and the corresponding description (page 34, line 1 to page 35, line 3) describe an embodiment of a database structure for storing and referencing search masks. FIG. 11 and the corresponding description (page 36, line 19 to page 39, line 15) describe a search process applied to PCD tables using search mask from a search mask table. FIGS. 12a and 12b and the corresponding description (page 39, line 17 to page 43, line 3) describe the use of search masks to build key values for processing transactions. FIG. 13 and the corresponding description (page 43, lines 8-23) expand on and detail a process for building processing key values using search masks.

Moreover, the language of the Applicant's claims 81 and 86 provide further information on what is meant by the term "search mask". For example, amended claim 81 recites:

- selecting a search mask table that corresponds to the key definition, wherein the selected search mask table comprises one or more search masks;
- reading a first search mask from the selected search mask table, wherein the first search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values identified in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;
- transferring one of the one or more data element values read from the transaction-related data to a first processing key value in response to the search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value;
- setting the first processing key value to a wildcard value if the search mask field value comprises a wildcard search mask field value

Amended claim 86 recites:

- selecting a search mask table that corresponds to the key definition, wherein the selected search mask table comprises one or more search masks;
- reading a first search mask from the selected search mask table, wherein the first

search mask comprises one or more search mask fields, wherein each of the one or more search mask fields corresponds to one of the one or more data element values identified in the key definition, and wherein each of the one or more search mask fields comprises a search mask field value;
transferring one of the one or more data element values read from the transaction-related data to a first processing key value in response to the search mask field value indicating that the data element value from the transaction-related data is to be written to the processing key value;
setting the first processing key value to a wild card value if the search mask field value comprises a wildcard search mask field value

Applicant respectfully submits that, in light of the language of amended claims 81 and 86, as well as the description and illustrations of search masks in Applicant's specification and drawings, one skilled in the art would understand what is meant by the term "search mask", as used by Applicant in amended claims 81 and 86. Applicant respectfully requests removal of the rejections under 35 U.S.C. 112, second paragraph.

Regarding claims 85, 90, and 95, the Office Action states: "There are appears to be a disconnect between the 'plurality of processing parameter tables' and 'wherein reading the key definition from the database' takes place." Applicant has amended claims 85, 90, and 95 for clarification. Applicant respectfully requests removal of the rejections under 35 U.S.C. 112, second paragraph.

Regarding claim 81, the Office Action takes the position that there is insufficient antecedent basis for the feature "transferring a wildcard value to the first processing key value...indication a wildcard value..." Applicant has amended claim 81 for clarification to recite: "setting the first processing key value to a wildcard value if the search mask field value comprises a wildcard search mask field value ". Support for the amendments may be found in Applicant's specification at least on page 5, lines 17-19; page 26, lines 20-22; and page 43, lines 18-20.

Page 5, lines 17-19 of Applicant's specification state:

In one embodiment, wildcard values may be entered as key element values in key elements. In one embodiment, a wildcard value may be the low collating value of the data type of the key element.

Page 26, lines 20-22 of Applicant's specification state:

The second search mask field value in this example is a wildcard search mask value, and therefore the wildcard value for the data type of data element y may be copied into the second key element of processing key value 532.

Page 43, lines 18-20 of Applicant's specification state:

If the search mask field value is a wildcard search mask field value, the processing key element value corresponding to the current data element may be set to a low collating value for the data type of the data element in step 506.

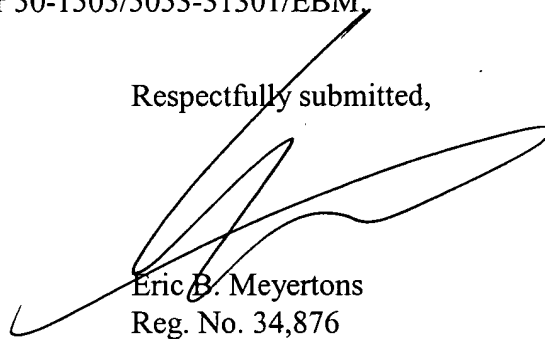
Applicant respectfully requests removal of the rejections under 35 U.S.C. 112, second paragraph.

E. Additional Remarks

Based on the above, Applicant submits that the claims are now in condition for allowance. Favorable reconsideration is respectfully solicited.

If any extension of time is required, Applicant hereby requests the appropriate extension of time. If any fees are inadvertently omitted or if any additional fees are required or have been overpaid, please appropriately charge or credit those fees to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account Number 50-1505/5053-31301/EBM.

Respectfully submitted,

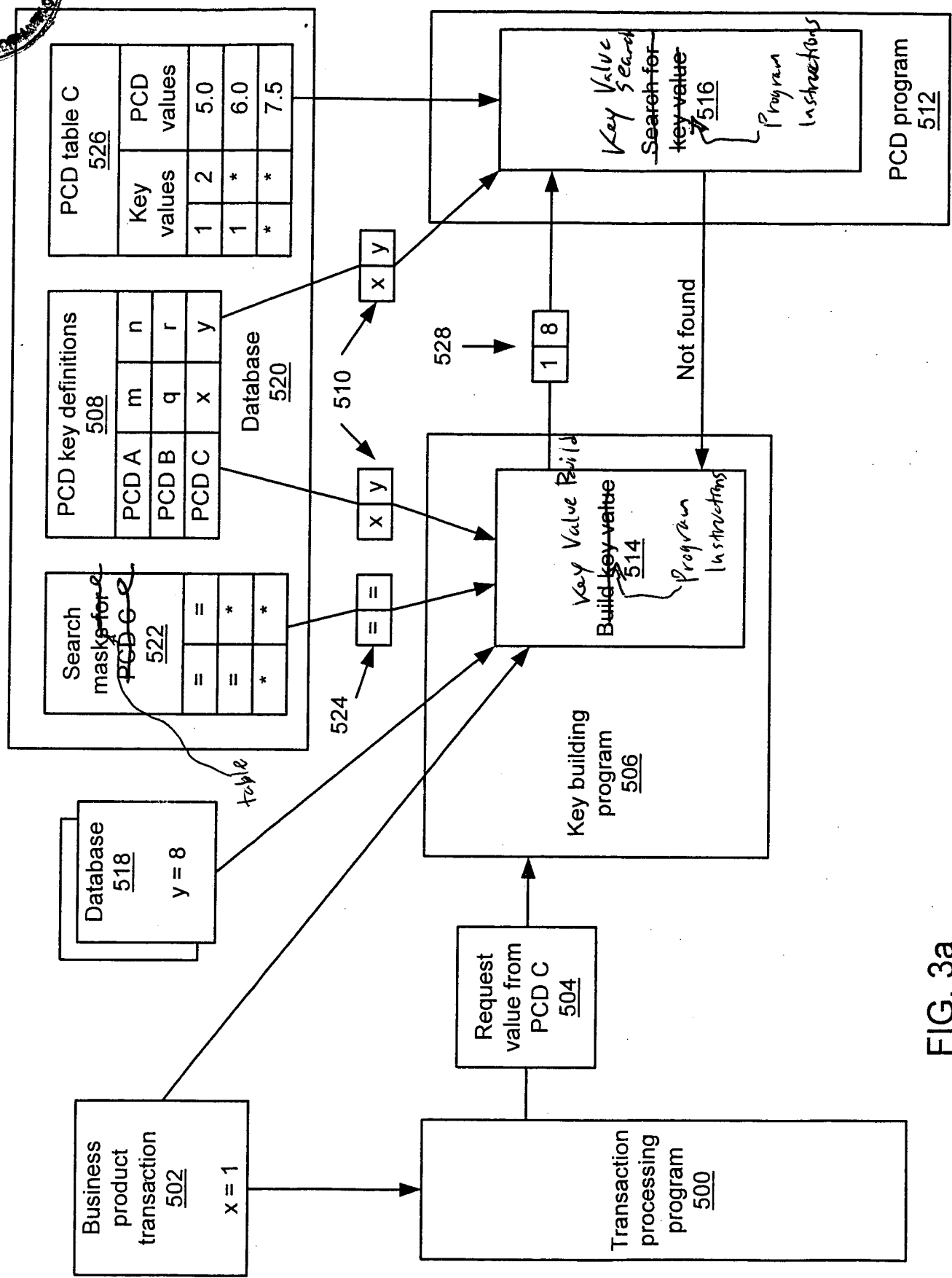
A large, stylized handwritten signature in black ink, appearing to read 'Eric B. Meyertons', is written over the typed name and registration number.

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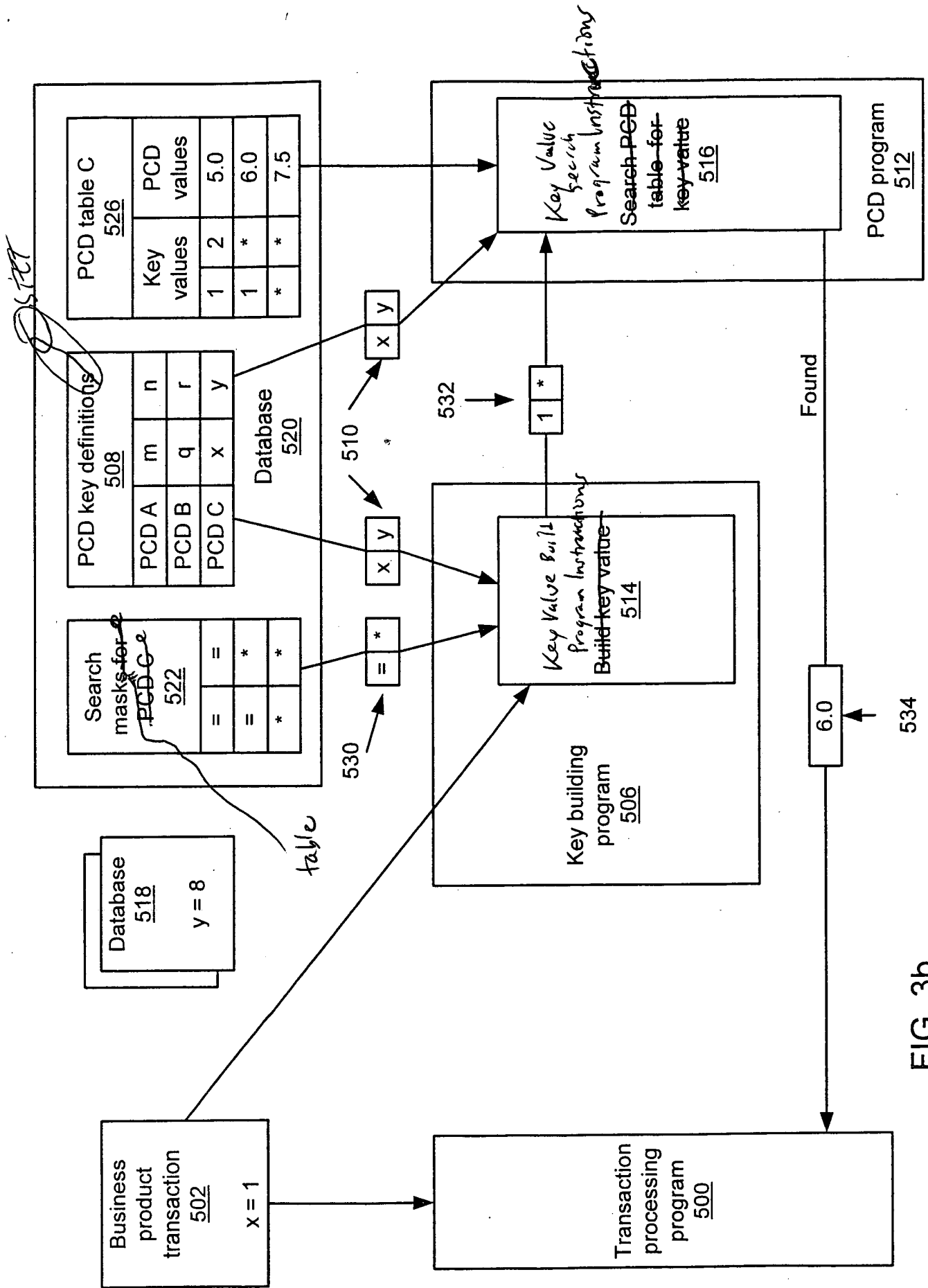


FIG. 3b

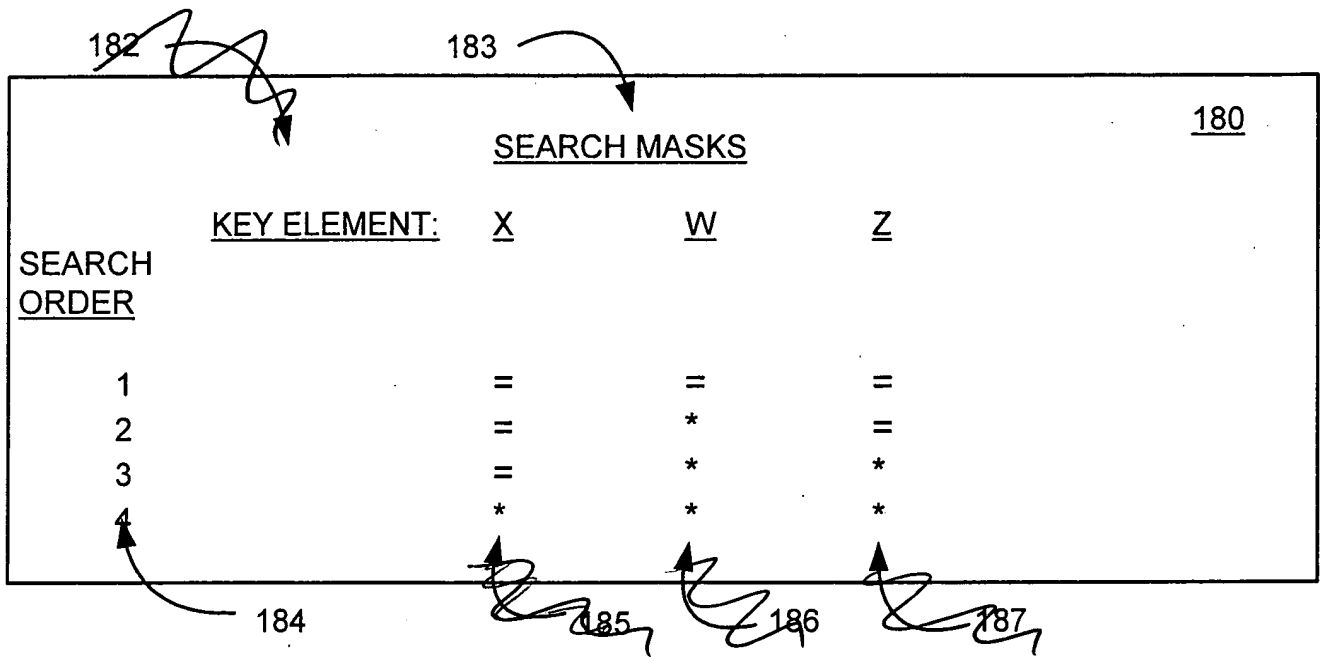


FIG. 6

	<u>PROCESSING KEY VALUES</u>			<u>PCD TABLE ROW</u>	<u>TRANSACTION CHARGE</u>
<u>KEY ELEMENT:</u>	<u>X</u>	<u>W</u>	<u>Z</u>		
SEARCH 1:	12	DIS	Y	2	8
SEARCH 2:	12	MSC	Y	-	-
	12	*	Y	4	13
SEARCH 3:	12	MSC	N	-	-
	12	*	N	-	-
	12	*	*	3	12
SEARCH 4:	14	MSC	N	-	-
	14	*	N	-	-
	14	*	*	-	-
	*	*	*	7	14

FIG. 11

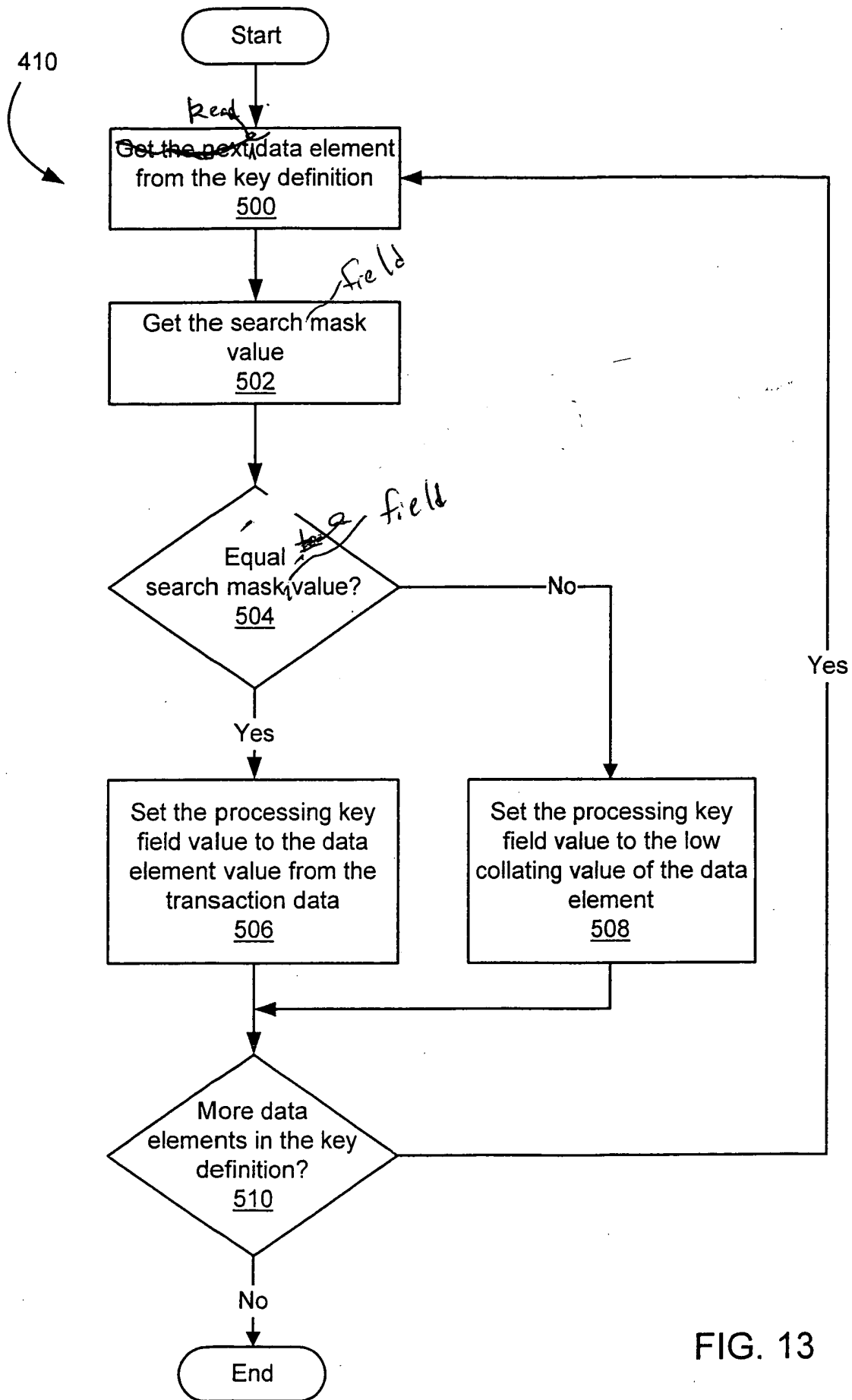


FIG. 13